

CLAIMS

1. A scroll compressor in which a fixed scroll and an orbiting scroll whose scroll laps rise from an end plate are meshed with each other to form a compression chamber therebetween, and when said orbiting scroll is turned along a circular orbit while restraining rotation by a rotation-restricting mechanism, said compression chamber moves while changing its volume, thereby carrying out suction, compression and discharge operations, wherein

an outer wall curve of a scroll lap of said fixed scroll and an inner wall curve of a scroll lap of said orbiting scroll are formed of involute curves whose basic circle radius is defined as "a", an inner wall curve of said scroll lap of said fixed scroll and an outer wall curve of said scroll lap of said orbiting scroll are formed of involute curves whose basic circle radius is defined as "b", and a value of a/b which is a ratio of said basic circle radius a and said basic circle radius b is set to a value exceeding 1.0 and less than 1.5.

2. The scroll compressor according to claim 1, wherein an involute angle θ_a at which an inner wall curve of said scroll lap of said fixed scroll is terminated and an involute angle θ_b at which an inner wall curve of said scroll lap of said orbiting scroll is terminated satisfy a relation of $\theta_b < \theta_a < \theta_b + \pi$.

3. The scroll compressor according to claim 1 or 2, wherein a center position of said basic circle radius a and a center position of said basic circle radius b are aligned with each other.

4. The scroll compressor according to claim 1 or 2, wherein a center position of said basic circle radius a and a center position of said basic circle radius b are separated from each other.

5. A scroll compressor in which a fixed scroll and an orbiting scroll whose scroll laps rise from an end plate are meshed with each other to form a compression chamber therebetween, and when said orbiting scroll is turned along a circular orbit while restraining rotation by a rotation-restricting mechanism, said compression chamber moves while changing its volume, thereby carrying out suction, compression and discharge operations, wherein

a thickness of a scroll lap of said fixed scroll is increased from its center toward an outer side thereof, and a thickness of a scroll lap of said orbiting scroll is reduced from its center toward an outer side thereof.

6. The scroll compressor according to any one of claims 1 to 5, wherein a refrigerant is a high pressure refrigerant, e.g., carbon dioxide.